abcam

Product datasheet

Anti-TPH2 antibody [EPR25100-29] ab288067

Recombinant RabMAb

1 References 17 Images

Overview

Product name	Anti-TPH2 antibody [EPR25100-29]
Description	Rabbit monoclonal [EPR25100-29] to TPH2
Host species	Rabbit
Specificity	No suitable positive material of human species is available for in-house IHC-P QC, and it worked well on overexpressed cells pellets of human species.
Tested applications	**Suitable for:** WB, IHC-P, IHC-Fr, IP, Flow Cyt, ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human brain, Mouse midbrain, Rat midbrain, HEK-293T transfected with Tryptophan 5-hydroxylase 2 expression vector with myc-His-tag® whole lysates. IHC-P: Mouse midbrain, Mouse cerebrum, Rat midbrain, Rat cerebrum tissues. IHC-Fr: Mouse midbrain, Rat midbrain tissues. ICC/IF: 293T+OE-1169 cells. Flow Cyt: HEK-293T transfected with a human Tryptophan 5-hydroxylase 2 vector with myc-His tag. IP: HEK-293T transfected with Tryptophan 5-hydroxylase 2 vector with myc-His-tag®, Mouse midbrain cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide

	Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR25100-29
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab288067 in the following tested applications.

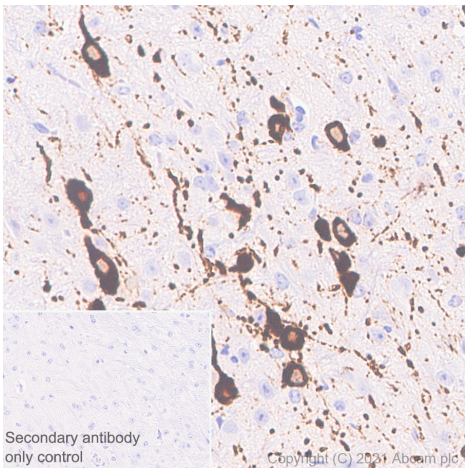
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Predicted molecular weight: 56 kDa.
IHC-P		1/2000.
IHC-Fr		1/500.
IP		1/30.
Flow Cyt		1/500.
ICC/IF		1/500.

Target

Tissue specificity	Brain specific.
Pathway	Aromatic compound metabolism; serotonin biosynthesis; serotonin from L-tryptophan: step 1/2.
Involvement in disease	Genetic variation in TPH2 may influence susceptibility to major depressive disorder (MDD) [MIM:608516]. Defects in TPH2 are the cause of susceptibility to attention deficit-hyperactivity disorder type 7 (ADHD7) [MIM:613003]. ADHD is a neurobehavioral developmental disorder and is primarily characterized by the co-existence of attentional problems and hyperactivity, with each behavior occurring infrequently alone. Note=Naturally occurring variants of TPH2 with impaired enzyme activity could cause deficiency of serotonin production and result in an increased risk of developing behavioral disorders.
Sequence similarities	Belongs to the biopterin-dependent aromatic amino acid hydroxylase family. Contains 1 ACT domain.

Images

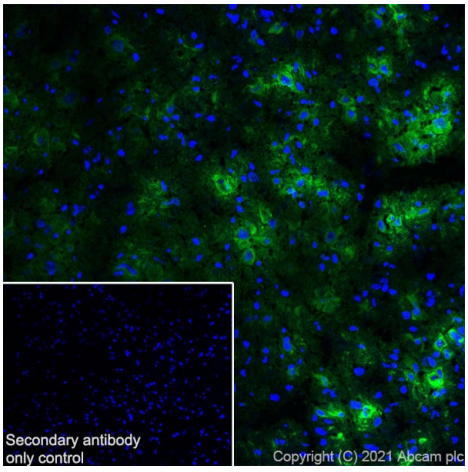


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TPH2 antibody [EPR25100-29] (ab288067)

Immunohistochemical analysis of paraffin-embedded Mouse midbrain tissue labelling TPH2 with ab288067 at 1/2000 (0.315 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) . Positive staining in mouse midbrain.The section was incubated with ab288067 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) .

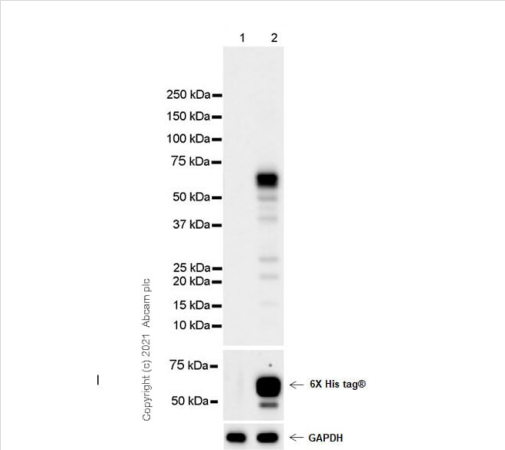
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



Immunohistochemistry (Frozen sections) - Anti-TPH2 antibody [EPR25100-29] (ab288067)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Rat midbrain (fresh) tissue labeling TPH2 with ab288067 at 1/500 (1.26 ug/ml) dilution followed by **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 ug/mL) dilution (Green). Positive staining on rat midbrain is observed. The nuclear counterstain was DAPI (Blue).

Secondary antibody control: Secondary antibody is **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 ug/mL) dilution.



Western blot - Anti-TPH2 antibody [EPR25100-29] (ab288067)

All lanes : Anti-TPH2 antibody [EPR25100-29] (ab288067) at 1/1000 dilution

Lane 1 : HEK-293T (human embryonic kidney) transfected with an empty vector (vector control), containi a myc-His-tag®, whole cell lysate
Lane 2 : HEK-293T transfected with Tryptophan 5-hydroxylase 2 expression vector containi a myc-His-tag®, whole cell lysate

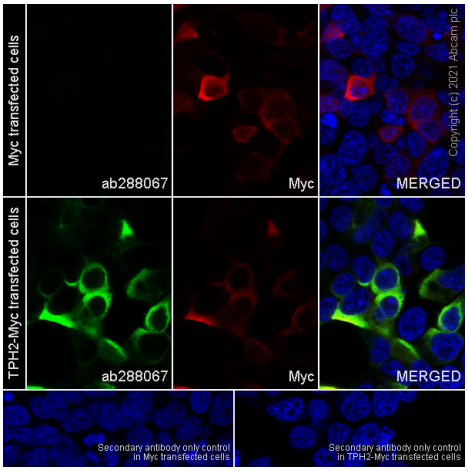
Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) at 1/100000 dilution

Predicted band size: 56 kDa

Blocking and diluting buffer and concentration: 5% NFDM/TBST

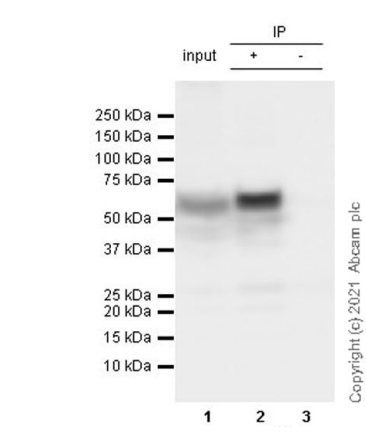
Exposure time: 10 seconds



Immunocytochemistry/ Immunofluorescence - Anti-TPH2 antibody [EPR25100-29] (ab288067)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized 293T+OE-1169 cells labelling TPH2 with ab288067 at 1/500 (1.26 ug/ml) dilution, followed by **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody ready to use(Green). Confocal image showing cytoplasmic staining in 293T cells transfected with myc-tagged TPH2 expression vector. is observed. Myc-Tag Mouse mAb (Alexa Fluor® 647) was used to counterstain tubulin at 1/100 (0.38ug/ml) dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) is ready to use.



Immunoprecipitation - Anti-TPH2 antibody [EPR25100-29] (ab288067)

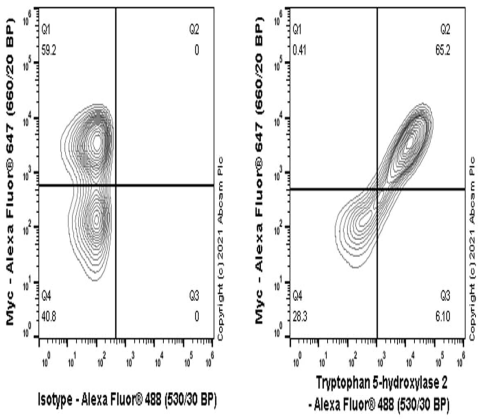
TPH2 was immunoprecipitated from 0.35 mg HEK-293T transfected with Tryptophan 5-hydroxylase 2 expression vector containing a myc-His-tag® whole cell lysate 10 ug with ab288067 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab288067 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(**ab131366**) was used at 1/5000 dilution.
Lane 1: HEK-293T transfected with Tryptophan 5-hydroxylase 2 expression vector containing a myc-His-tag® whole cell lysate 10 ug

Lane 2: ab288067 IP in HEK-293T transfected with Tryptophan 5-hydroxylase 2 expression vector containing a myc-His-tag® whole cell lysate

Lane 3:Rabbit monoclonal IgG (**ab172730**) instead of ab288067 in HEK-293T transfected with Tryptophan 5-hydroxylase 2 expression vector containing a myc-His-tag® whole cell lysate

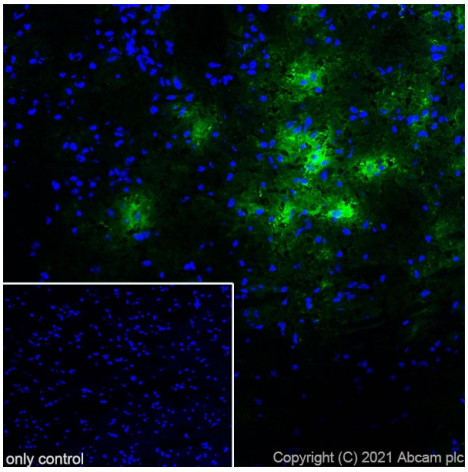
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 1 second



Flow Cytometry - Anti-TPH2 antibody [EPR25100-29] (ab288067)

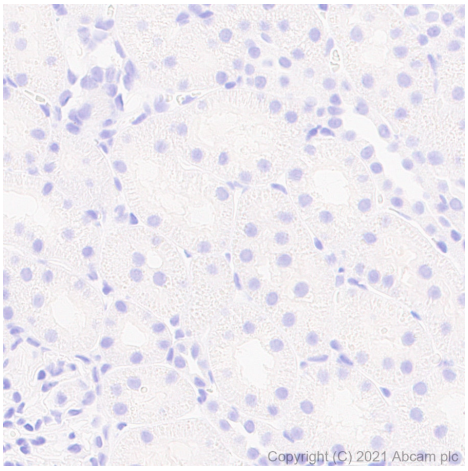
Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HEK-293T (Human embryonic kidney epithelial cell) transfected with a human Tryptophan 5-hydroxylase 2 expression vector containing a myc-His tag cells labelling TPH2 with ab288067 at 1/500 dilution (0.1ug)(Right) compared with a Rabbit monoclonal IgG (**ab172730**) (Left) isotype control. A Goat Anti-Rabbit IgG (Alexa Fluor® 488, **ab150081**) at 1/2000 dilution was used as the secondary antibody.



Immunohistochemistry (Frozen sections) - Anti-TPH2 antibody [EPR25100-29] (ab288067)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse midbrain (fresh) tissue labeling TPH2 with ab288067 at 1/500 (1.26 ug/ml) dilution followed by **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 ug/mL) dilution (Green). Positive staining on mouse midbrain is observed. The nuclear counterstain was DAPI (Blue).

Secondary antibody control: Secondary antibody is **ab150081** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 ug/mL) dilution.

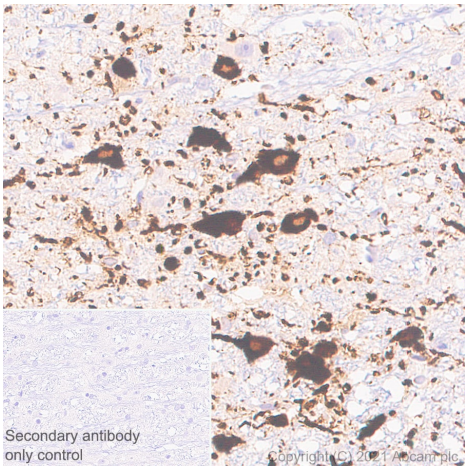


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TPH2 antibody [EPR25100-29] (ab288067)

Immunohistochemical analysis of paraffin-embedded Rat kidney tissue labelling TPH2 with ab288067 at 1/2000 (0.315 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) . No staining in rat kidney.The section was incubated with ab288067 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) .

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TPH2 antibody [EPR25100-29] (ab288067)

Immunohistochemical analysis of paraffin-embedded Rat midbrain tissue labelling TPH2 with ab288067 at 1/2000 (0.315 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) . Positive staining in rat midbrain.The section was incubated with ab288067 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

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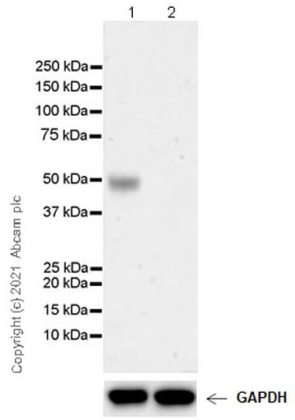


Western blot - Anti-TPH2 antibody [EPR25100-29] (ab288067)

All lanes : Anti-TPH2 antibody [EPR25100-29] (ab288067) at 1/1000 dilution

Lane 1 : Human brain tissue lysate

Lane 2 : Human kidney tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

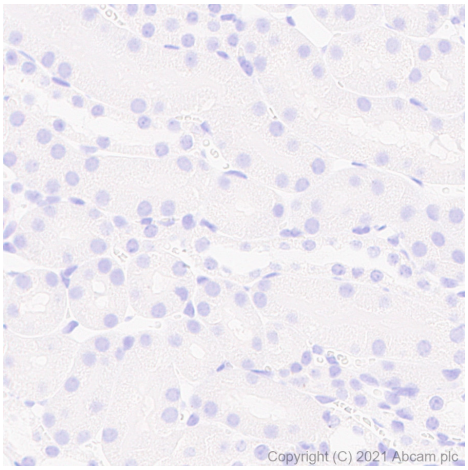
Predicted band size: 56 kDa

Blocking and diluting buffer and concentration: 5% NFDM/TBST

Negative control: kidney (PMID: 12511643).

This blot was developed using a higher sensitivity ECL substrate.

Exposure time: 3 minutes



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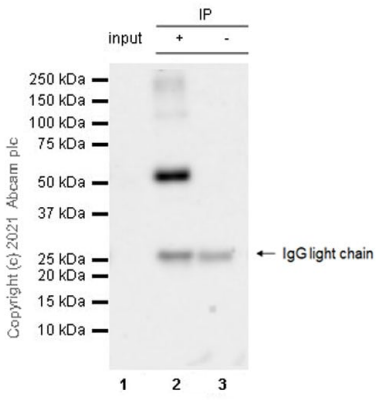
Immunohistochemical analysis of paraffin-embedded Mouse kidney tissue labelling TPH2 with ab288067 at 1/2000 (0.315 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) . No staining in mouse kidney.The section was incubated with ab288067 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) .

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



Immunoprecipitation - Anti-TPH2 antibody [EPR25100-29] (ab288067)

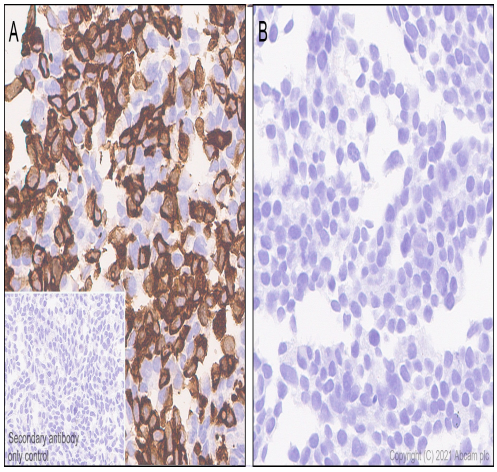
TPH2 was immunoprecipitated from 0.35 mg Mouse midbrain tissue lysate 10 ug with ab288067 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab288067 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(**ab131366**) was used at 1/5000 dilution.
Lane 1: Mouse midbrain tissue lysate 10 ug

Lane 2: ab288067 IP in Mouse midbrain tissue lysate

Lane 3:Rabbit monoclonal IgG (**ab172730**) instead of ab288067 in mouse midbrain tissue lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 32 seconds

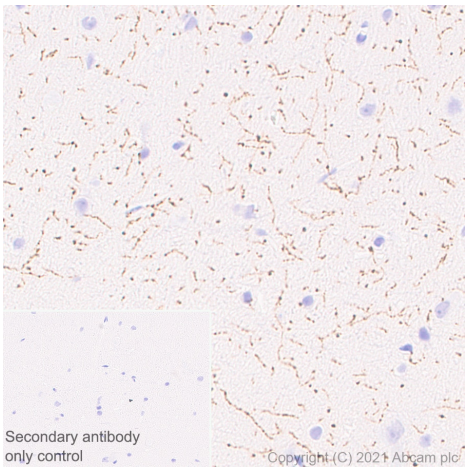


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TPH2 antibody [EPR25100-29] (ab288067)

Immunohistochemical analysis of paraffin-embedded (A) HEK-293T cells labelling TPH2 with ab288067 at 1/2000 (0.315 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) . Cytoplasmic staining on (A) HEK-293T cells transfected with a TPH2 expression vector containing a his tag. No staining on (B) HEK-293T cells transfected with empty vector containing a his tag.The section was incubated with ab288067 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) .

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TPH2 antibody [EPR25100-29] (ab288067)

Immunohistochemical analysis of paraffin-embedded Rat cerebrum tissue labelling TPH2 with ab288067 at 1/2000 (0.315 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) . Positive staining in neural fibers of rat cerebrum.The section was incubated with ab288067 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection) .

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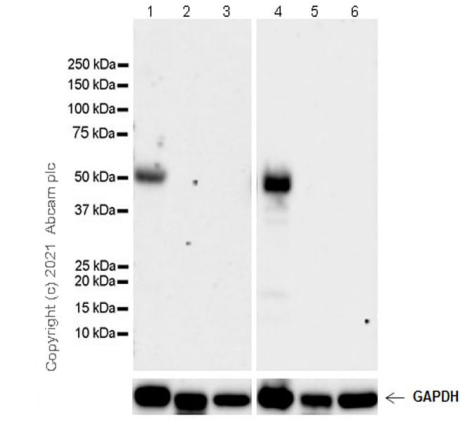


Western blot - Anti-TPH2 antibody [EPR25100-29] (ab288067)

All lanes : Anti-TPH2 antibody [EPR25100-29] (ab288067) at 1/1000 dilution

Lane 1 : Mouse midbrain tissue lysate
Lane 2 : Mouse kidney tissue lysate
Lane 3 : Mouse spleen tissue lysate
Lane 4 : Rat midbrain tissue lysate
Lane 5 : Rat kidney tissue lysate
Lane 6 : Rat spleen tissue lysate

Lysates/proteins at 20 µg per lane.

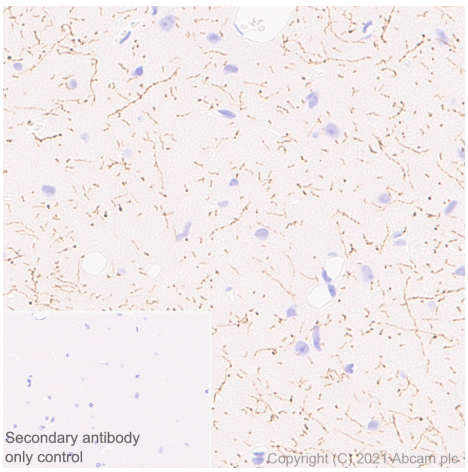
Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) at 1/50000 dilution

Predicted band size: 56 kDa

Blocking and diluting buffer and concentration: 5% NFDM/TBST

Negative control: kidney, spleen (PMID: 12511643).

Exposure time: Lanes 1-3: 70 seconds; Lanes 4-6: 26 seconds



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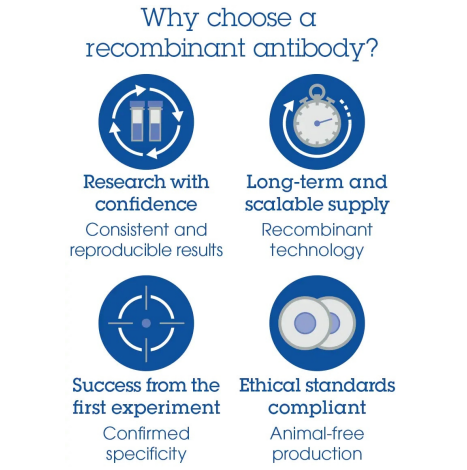

Anti-TPH2 antibody [EPR25100-29] (ab288067)

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- Response to your inquiry within 24 hours

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